

AMENDMENTS TO THE CLAIMS:

10/562166

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18 Canceled

19. (New) An electromechanical lock cylinder that cooperates with evaluation electronics to recognize access authorization, comprising:

a housing that includes two opposite cylindrical receptacles, in which either a lock core, which can be operated by a key, or a knob shaft, which is connected to rotate in unison with a knob, are mounted to rotate, in which the lock cores or knob shafts cooperate with a lock tab, which operates, in particular, a bolt or a latch of a door lock, and, with a fitting key or access authorization, an electromechanically driven blocking or coupling element is moved from the rest position to an operating position and produces a splined connection between the key or knob and the lock tab, whereas the lock tab, in the rest position of the blocking or coupling element, is freely rotatable relative to the two lock cores or the two knob shafts, wherein the blocking or coupling element is arranged on or in the lock core or on or in the knob shaft and rotates with it, and includes an eccentric, which moves a driver back and forth between the rest position and the operating position, in which it engages in a recess of the lock tab or rotary sleeve, on which the lock tab is arranged.

20. (New) The electromechanical lock cylinder according to Claim 19, wherein a continuous lock core or continuous knob shaft is present, which extends from one side of the housing to the opposite side and can be operated from both sides by a key or rotated by a knob.

21. (New) The electromechanical lock cylinder according to Claim 19, wherein the rest position and/or the operating position of the driver lie beyond the corresponding dead centers of the eccentric by a predeterminable angle of rotation.

22. (New) The electromechanical lock cylinder according to Claim 21, wherein the angle of rotation is 10° to 30° beyond the corresponding dead center.

23. (New) The electromechanical lock cylinder according to Claim 19, wherein the eccentric has a pin arranged eccentrically around motor shaft, which engages in a groove extending across the lift movement of driver and perpendicular to the motor shaft, whose position and length are dimensioned, so that a rotary movement from the rest position into the operating position is only possible in one direction of rotation, and the rotational movement from the operating position into the rest position of the driver is only possible in the opposite direction of rotation.

24. (New) The electromechanical lock cylinder according to Claim 23, wherein the length and position of the groove are chosen, in order to permit further rotation of the eccentric from the rest position of the operating position of the driver beyond the dead center by the angle of rotation and vice versa.

25. (New) The electromechanical lock cylinder according to Claim 19, wherein the driver includes a slide, whose free end is guided in the sleeve, whose free end enters the recess of the lock tab or rotary sleeve, and in whose interior a compression spring is arranged, which cooperates with the free end of the pin.

26. (New) The electromechanical lock cylinder according to Claim 25, wherein the depth of the recess of the lock tab or the rotary sleeve is dimensioned, so that when the driver is engaged, the compression spring in the sleeve is still under tension.

27. (New) The electromechanical lock cylinder according to Claim 25, wherein the sleeve, on its side opposite the free end, has a stop , against which the thickened end of the slide stops.

28. (New) The electromechanical lock cylinder according to Claim 27, wherein the depth of the recess of the lock tab or the rotary sleeve is dimensioned, so that when the driver is engaged, the compression spring in the sleeve is still under tension.

29. (New) The electromechanical lock cylinder according to Claim 19, wherein the driver, in the rest position, is held by spring force.

30. (New) The electromechanical lock cylinder according to Claim 19, wherein recording devices are present to record the position of the coupling element.

31. (New) The electromechanical lock cylinder according to Claim 30, wherein the recording devices generate at least one signal, and preferably a sequence of signals, in order to move the coupling element into the rest position, as long as the coupling element is in the operating position or still not in the rest position, and if the rest position is to be assumed.

32. (New) The electromechanical lock cylinder according to Claim 30, wherein recording devices include at least one hall sensor and/or at least one capacitive or conductive sensor or a switch, which cooperates with a moving element of the coupling element.

33. (New) The electromechanical lock cylinder according to Claim 32, wherein the recording devices cooperate with the driver.

34. (New) The electromechanical lock cylinder according to Claim 32, wherein the recording devices record the position of the eccentric or the motor shaft.

35. (New) The electromechanical lock cylinder according to Claim 19, wherein the blocking or coupling element includes an electromagnetic or electric motor drive.

36. (New) An electromechanical lock cylinder, which cooperates with an evaluation electronics to recognize access authorization, comprising:

a housing that includes two opposite cylindrical receptacles, in which, on one side of the housing, a lock core, which can be operated by a key, and, on the opposite side, a knob shaft, which is connected to rotate in unison with a knob, are mounted to rotate, in which the lock core and/or knob shaft cooperate with a lock tab, and especially operate a bolt or latch of a door lock, and with a fitting key and/or access authorization, an electromechanically driven blocking or coupling element is moved from the rest position to an operating position and produces a splined connection between the key and/or knob and the lock tab, whereas the lock tab, in the rest position of the blocking or coupling element, is freely rotatable relative to the lock core in the knob shaft, wherein the blocking or coupling element is arranged on or in the lock core or on or in the knob shaft and rotates with it, and also includes an eccentric, which moves a driver back and forth between the rest position and the operating

position, in which it engages in a recess of the lock tab or a rotary sleeve, on which the lock tab is arranged.

37. (New) The electromechanical lock cylinder according to Claim 36, wherein the lock core and knob shaft are connected to rotate in unison with each other or made in one piece.

38. (New) The electromechanical lock cylinder according to Claim 36, wherein the rest position and/or the operating position of the driver lie beyond the corresponding dead centers of the eccentric by a predeterminable angle of rotation.

39. (New) The electromechanical lock cylinder according to Claim 38, wherein the angle of rotation is 10° to 30° beyond the corresponding dead center.

40. (New) The electromechanical lock cylinder according to Claim 36, wherein the eccentric has a pin arranged eccentrically around motor shaft, which engages in a groove extending across the lift movement of driver and perpendicular to the motor shaft, whose position and length are dimensioned, so that a rotary movement from the rest position into the operating position is only possible in one direction of rotation, and the rotational movement from the operating position into the rest position of the driver is only possible in the opposite direction of rotation.

41. (New) The electromechanical lock cylinder according to Claim 40, wherein the length and position of the groove are chosen, in order to permit further rotation of the eccentric from the rest position of the operating position of the driver beyond the dead center by the angle of rotation and vice versa.

42. (New) The electromechanical lock cylinder according to Claim 36, wherein the driver includes a slide, whose free end is guided in the sleeve, whose free end enters the recess of the lock tab or rotary sleeve, and in whose interior a compression spring is arranged, which cooperates with the free end of the pin.

43. (New) The electromechanical lock cylinder according to Claim 42, wherein the depth of the recess of the lock tab or the rotary sleeve is dimensioned, so that when the driver is engaged, the compression spring in the sleeve is still under tension.

44. (New) The electromechanical lock cylinder according to Claim 42, wherein the sleeve, on its side opposite the free end, has a stop, against which the thickened end of the slide stops.

45. (New) The electromechanical lock cylinder according to Claim 44, wherein the depth of the recess of the lock tab or the rotary sleeve is dimensioned, so that when the driver is engaged, the compression spring in the sleeve is still under tension.

46. (New) The electromechanical lock cylinder according to Claim 36, wherein the driver, in the rest position, is held by spring force.

47. (New) The electromechanical lock cylinder according to Claim 36, wherein recording devices are present to record the position of the coupling element.

48. (New) The electromechanical lock cylinder according to Claim 47, wherein the recording devices generate at least one signal, and preferably a sequence of signals, in order to move the coupling element into the rest position, as long as the coupling element is

in the operating position or still not in the rest position, and if the rest position is to be assumed.

49. (New) The electromechanical lock cylinder according to Claim 47, wherein recording devices include at least one hall sensor and/or at least one capacitive or conductive sensor or a switch, which cooperates with a moving element of the coupling element.

50. (New) The electromechanical lock cylinder according to Claim 49, wherein the recording devices cooperate with the driver.

51. (New) The electromechanical lock cylinder according to Claim 49, wherein the recording devices record the position of the eccentric or the motor shaft.

52. (New) The electromechanical lock cylinder according to Claim 36, wherein the blocking or coupling element includes an electromagnetic or electric motor drive.

53. (New) An electromechanical lock cylinder, which cooperates with evaluation electronics to recognize an access authorization, comprising:

a housing, which includes a cylindrical receptacle, in which either a lock core, which can be operated by a key, or a knob shaft, which is connected to rotate in unison with a knob, are mounted to rotate, in which the lock core or the knob shaft cooperate with a lock tab, which operates, in particular, a bolt or latch of a door lock, and, with a fitting key and/or access authorization, electromechanically driven blocking or coupling element is moved from the rest position to an operating position and produces a splined connection between the key or knob and the lock tab, whereas the lock tab, in the rest position of the blocking or coupling element, is freely rotatable relative to the lock core or to the knob shaft, wherein the

blocking or coupling element is arranged on or in the lock core or on or in the knob shaft and rotates with it, and also includes an eccentric, which moves a driver back and forth between the rest position and the operating position, in which it engages in a recess of the lock tab or a rotary sleeve, on which the lock tab is arranged.

54. (New) The electromechanical lock cylinder according to Claim 53, wherein the rest position and/or the operating position of the driver lie beyond the corresponding dead centers of the eccentric by a predeterminable angle of rotation.

55. (New) The electromechanical lock cylinder according to Claim 54, wherein the angle of rotation is 10° to 30° beyond the corresponding dead center.

56. (New) The electromechanical lock cylinder according to Claim 53, wherein the eccentric has a pin arranged eccentrically around motor shaft, which engages in a groove extending across the lift movement of driver and perpendicular to the motor shaft, whose position and length are dimensioned, so that a rotary movement from the rest position into the operating position is only possible in one direction of rotation, and the rotational movement from the operating position into the rest position of the driver is only possible in the opposite direction of rotation.

57. (New) The electromechanical lock cylinder according to Claim 56, wherein the length and position of the groove are chosen, in order to permit further rotation of the eccentric from the rest position of the operating position of the driver beyond the dead center by the angle of rotation and vice versa.



58. (New) The electromechanical lock cylinder according to Claim 53, wherein the driver includes a slide, whose free end is guided in the sleeve, whose free end enters the recess of the lock tab or rotary sleeve, and in whose interior a compression spring is arranged, which cooperates with the free end of the pin.

59. (New) The electromechanical lock cylinder according to Claim 58, wherein the depth of the recess of the lock tab or the rotary sleeve is dimensioned, so that when the driver is engaged, the compression spring in the sleeve is still under tension.

60. (New) The electromechanical lock cylinder according to Claim 58, wherein the sleeve, on its side opposite the free end, has a stop, against which the thickened end of the slide stops.

61. (New) The electromechanical lock cylinder according to Claim 60, wherein the depth of the recess of the lock tab or the rotary sleeve is dimensioned, so that when the driver is engaged, the compression spring in the sleeve is still under tension.

62. (New) The electromechanical lock cylinder according to Claim 53, wherein the driver, in the rest position, is held by spring force.

63. (New) The electromechanical lock cylinder according to Claim 53, wherein recording devices are present to record the position of the coupling element.

64. (New) The electromechanical lock cylinder according to Claim 63, wherein the recording devices generate at least one signal, and preferably a sequence of signals, in order to move the coupling element into the rest position, as long as the coupling element is

in the operating position or still not in the rest position, and if the rest position is to be assumed.

65. (New) The electromechanical lock cylinder according to Claim 63, wherein recording devices include at least one hall sensor and/or at least one capacitive or conductive sensor or a switch, which cooperates with a moving element of the coupling element.

66. (New) The electromechanical lock cylinder according to Claim 65, wherein the recording devices cooperate with the driver.

67. (New) The electromechanical lock cylinder according to Claim 65, wherein the recording devices record the position of the eccentric or the motor shaft.

68. (New) The electromechanical lock cylinder according to Claim 53, wherein the blocking or coupling element includes an electromagnetic or electric motor drive.